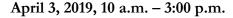




# From Cradle to Grave: Addressing End-of-life Management for Photovoltaic Panels and Batteries for Electric Vehicles and Energy Storage





California Public Utilities Commission, Auditorium | 505 Van Ness Ave, San Francisco, CA

Webcast: http://www.adminmonitor.com/ca/cpuc/workshop/20190403/

### AGENDA

10 - 10:05 a.m.

# Purpose of the Day & Safety Announcement

 Nidhi Thakar, Chief for Strategy and External Affairs for President Michael Picker, California Public Utilities Commission

CalRecycle and the California Public Utilities Commission will host a joint public workshop on the collection, handling, and reuse or recycling of end-of-life photovoltaic panels, electric vehicle batteries, energy storage batteries, and related equipment. Discussion topics will include current policies and programs and identifying challenges to proper disposal and recycling of end-of-life materials, as well as potential solutions.

# 10:05 a.m – 10:20 a.m. Opening Remarks

- President Picker, California Public Utilities Commission
- Director Smithline, CalRecycle
- Chair Griffin and Commissioner Potter, Hawaii Public Utilities Commission

# 10:20 a.m. – 11:30 a.m. Current State of the Market and Agency Efforts

Moderator: Ana-Maria Stoian-Chu, CalRecycle

- Brian Korpics, California Public Utilities Commission
- Jessica Twining, Department of Toxic Substances Control
- Natalie Lee, California Energy Commission
- Joshua Cunningham, California Air Resources Board
- Teresa Bui, CalRecycle

Questions and Answers

# 11:30 a.m. – 12:45 p.m. Identifying the Problem and Challenges

Moderator: Nidhi Thakar, California Public Utilities Commission

- Heidi Sanborn, Senior Advisor, California Product Stewardship Council
- Dustin Mulvaney, Ph.D, Associate Professor for Environmental Studies, San Jose State University, "Challenges to a circular economy in photovoltaics and lithium-ion batteries"
- Evelyn Butler, Senior Director of Codes and Standards, Solar Energy Industries Association
- Dirk Spiers, CEO, Spiers New Technologies

Questions and Answers

# 12:45 p.m. – 1:45 p.m. LUNCH BREAK (Lunch is not provided, but there are options close by)

### 1:45 p.m. – 2:55 p.m.

# **Opportunities**

Moderator: Paulina Kolic, CalRecycle

- Jan Clyncke, Board Director, PV Cycle, "10 Years EPR Programme for PV Panels in Europe"
- Maggie Mann, Transportation and Infrastructure Team Lead, National Renewable Energy Laboratory, "PV and Battery Recycling Research at DOE National Labs"
- Jon Weisman, Sr., Program Manager, Tesla, "An Automaker and Solar Developer's Perspective"
- Michael Slater, Ph.D, R&D Manager, Farasis Energy Inc., "Li-ion Battery Recycling: A Manufacturer's Perspective"

Questions and Answers

# 2:55 - 3:00 p.m.

Closing Remarks, Teresa Bui, Special Advisor to Director Smithline, CalRecycle

**Note 1:** Opportunity for public comment and question will occur after each panel to provide for workshop-style panels.

**Note 2:** It is expected that one or more CPUC Commissioners will attend and participate in the workshop. One or more advisors to the CPUC Commissioners, as well as other decision-makers, may also be in attendance at the workshop. The agenda will be publicly noticed on the CPUC's Daily Calendar 10 days in advance, so statements made at the workshop will not constitute a reportable ex parte contact.

Note 3: No formal action of the CPUC or CalRecycle will be taken at the workshop.

**Note 4:** This agenda is subject to change.